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Lectures.

LECTURE ON THE PATHOLOGY AND TREATMENT OF INFANTILE PARALYSIS.

Delivered before the New York Journal Association.

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Reported by E. S. Belden, M. D.,

Mr. President, and Gentlemen:—In accepting an invitation to address you this evening, I have done so with much diffidence, because the subjects in regard to which I have been asked to speak are really in some respects among the most obscure in the whole range of medical science. I cannot promise to bring any new points before you, but shall endeavor to give you an outline of what is really known in regard to those, based not only upon the investigations of others, but in great part upon my own experience.

First, in regard to the pathology. Two very different diseases are included under the term infantile paralysis. One of them is slight, temporary in its character, and under the use of iron and strychnia, terminates almost always in complete recovery; which plan of treatment was first described by Kennedy several years since. This form of the disease occurs from peripheral irritation and is probably due to a slight congestion of the meninges of the spinal cord.

The other, the one to which I shall ask your attention this evening, is much more severe, rarely, if ever, spontaneously ending in complete recovery. It has been described by Rilliet and Barthez as *Paralysie Essentielle de l'enfance*, and more fully by Duchenne, as the *Paralysie Atrophique graisseuse de l'enfance*. To this author is due the credit of a first correct account of the pathology of the muscles afflicted in this disease. According to him—and he has very abundantly settled the point by examinations of muscular tissue taken from the living subject—the first change that ensues after some slight degree of atrophy, is that of fatty degeneration. In his work entitled, "L'Électrisation localisée," he has given some excellent figures of the condition of the muscles in this disease, showing their conversion into fat. Examinations which I have also made of the muscular tissue of infants affected with paralysis, abundantly prove the correctness of Duchenne's investigations. The drawings which I show you now exhibit this point in a very striking degree. You will observe that there is a regular progressive increase of the fatty deposit, according to the length of time that the child has suffered from this affection. In some, you will observe, there is a simple deposit of fatty matter. The transverse striæ of the muscle are still to be perceived, and the longitudinal striæ are not absent. But as the fatty deposit increases, the muscular tissue seems to undergo a conversion into fat; the transverse striæ almost entirely disappear, and the longitudinal striæ are no longer to be seen. Fatty cells and oil globules have entirely taken the place of the muscular tissue. Along with this fatty degeneration of the muscle, which is really the essential feature of the disease, there is atrophy, reduction of temperature, and an abolition of the electrical contractility of the muscle. These four points, then,—fatty degeneration, atrophy, reduction of temperature, and loss of electrical contractility, are those which satisfactorily establish the existence of this form of infantile paralysis.

In order to ascertain the exact condition of the muscle, so far as the deposit of fat is concerned, Duchenne invented a small trocar, which he introduced through the skin into the muscle, and by a very slight mechanism he drew out with the instrument a small portion of muscular tissue. This, submitted to microscopical examination, of course showed the condition of the muscle. The instrument which I pass around to you now is similar to that of Duchenne, and I have been in the habit of using it quite frequently in order to ascertain the condition of the part affected.

Relative to the reduction of temperature; it is sometimes impossible to ascertain this with a sufficient degree of accuracy by means of the

common thermometer. I have, therefore, been in the habit of using Becquerel's discs, which are made of copper and bismuth, and which, by being placed in communication with a delicate galvanometer, show a reduction of temperature when it is very slight, and show the improvement in the condition of the tissue as the cure goes on.

Relative to the essential pathology of the disease, as far as the spinal cord is concerned, very little is really known upon the subject. It can scarcely be supposed, however, that so severe a disease as this could exist without some affection of the cord as its origin. In one case only that I have examined with reference to the condition of the cord, I found a cicatrix partially filled with a very small clot, which had existed probably some three or four years. This was in the case of a child who was suffering from infantile paralysis, when she accidentally fell down stairs and broke her neck instantly. In this case, in order to ascertain the condition of the cord which had given rise to the paralysis of the lower limb, I made a post-mortem examination, opened the spinal column, and discovered the condition that I have mentioned in the lower part of the dorsal portion of the cord. I am not aware that any other examination of the spinal cord has been made in this disease.

Duchenne expresses the opinion that it certainly is due to some affection of the cord; and I think most persons who have given their attention to this subject will coincide in this opinion.

When the poles of a galvanic battery are applied to a healthy muscle, contraction takes place. When the poles of a battery are applied to the muscle which is in the state described by Duchenne as existing in this infantile paralysis, a contraction does not take place. Or if it does, it is so very slight as not to be able generally to move the limb. The object, therefore, in using electricity is not only to hinder the further conversion of the muscle into fat, but to develope those few fibres that remain. And that this can be done is very satisfactorily settled, not only by Duchenne's practice, but in my own experience and that of others. For instance, when a person falls upon the shoulder and paralyzes the deltoid muscle, the paralysis that ensues is due to injury of the circumflex nerve. If the patient is left to himself, in all probability paralysis of the deltoid will remain, and he will never recover the ability to raise the shoulder. But by applying galvanism to the deltoid muscle, you thus preserve the electrical contractility of it; the circumflex nerve regains its power, and by the time it is cured of the injury it has received, the deltoid, having retained its contractility, is in a condition to perform its proper functions. Now, this is just precisely the case with the muscles in infantile paralysis. If they are allowed to go on in the condition to which they have been reduced by either injury to the nerve or injury to the spinal cord, and the electrical contractilily becomes destroyed, the muscle becomes converted into fat or atrophies; and when it has entirely gone into this condition of fatty degeneration, or fatty subititution, it is impossible that it can ever regain the power of contracting; consequently, the child remains perfectly lame. But the application of galvanism to it, to develope the contractile power that exists, the ability to act is preserved, new fibres are developed, and the injury is thus very frequently cured.

The form of galvanism that I have been in the habit of using is that known as derived from the induction-coil, or what is commonly called Faradization. This is to be distinguished from galvanism. In simple galvanism, the current coming from the parallel plates forms the direct current; but in Faradization you use the current which has been induced in a coil of wire; passing around the entire coil and being called the induced current; or, in compliment to Faraday, who first brought it into use, the Faradaic current. I was for a long time in the habit of using the induced current; but in some recent cases that have come under my observation frequently, the true voltaic or galvanic current has accomplished results which could not be accomplished by the induced current. I have constructed a battery consisting of one hundred bars, the effect of which is exceedingly intense; so much so, that if the poles are allowed to remain upon the skin for even a few seconds, a blister would be raised. With this instrument I have been able to produce contractions of the limbs of infants who were paralyzed, when I could not produce the slightest movement in the most powerful coils I have been able to procure. This instrument, which was made for me by Mr. Chester, of this city, consists of a series of perforated zinc and copper bars. These are separated from each other by pieces of flannel, and the agent which sets it in motion, dilute acetic acid or common vinegar, is poured upon it from the top. Owing to the fact that one plate is perforated and the other is not, the fluid soaks through them from one to the other; not, as in the common voltaic pile, along the edges only, and thus a current of greater intensity and quantity is obtained.

DUCHENNE has stated that he has cured patients affected with infantile paralysis after the disease has lasted two years. In my own experience I have never been able to effect this desirable result when the disease has lasted more than eighteen months; but I can very well conceive that by applying the galvanism regularly, and by using the other methods to which I shall hereafter allude, this cure may be effected, even after a longer time than that mentioned by DUCHENNE.

Along with the constant use of galvanism, other measures must be adopted which have great effect in accomplishing a cure. Among these are the local application of heat and the use of strychnia. I have been in the habit of using the heat by immersing the limb in hot water heated up to the temperature of from 140° to 160°, and sometimes even applying the galvanism through the medium of the water. This is readily done by having the vessel of copper, adapted to the shape of the leg somewhat, immersing the leg in it, and putting one pole into the water, and the other on the side of the vessel, when a current of galvanism is at once spread over the whole surface of the limb that is in the water. ' Strychnia is undoubtedly beneficial in infantile paralysis, when the acute stage is passed off, but as certainly injurious in the early stages, before the local trouble in the cord has become healed. This disease generally originates from cold, exposure, and sometimes from external irritation reflected to the cord. Therefore it would be exceedingly improper to use strychnia when the cord is inflamed or congested, as I believe is generally the condition in the first stage of the affection. After this condition has passed, which generally takes two or three weeks, the strychnia is decidedly beneficial, injecting it under the skin of the affected limb. I have practised this operation frequently, but cannot say that I have witnessed any result different or more beneficial than those which are obtained from taking the strychnia into the stomach.

Another measure which is not to be neglected, is the exercise of the limb as far as possible. When there is an entire inability to move the affected limb at all, passive motion must be kept up; the muscles must be kneaded continually, by means of the fingers pressing and working them about, just as you would a ball of dough. It is surprising how very rapidly the muscle becomes hard and tense under this operation.

I do not know that there are any other measures worthy of attention in this disease. As you will see, they simply comprehend the constant use of galvanism, the application of heat, the use of strychnia, passive motion, and kneading of the muscles.

As to the prognosis, I have generally been in the habit of saying, after Sir BENJAMIN BRODIE, that when the patient, laid upon the floor, is able to draw up the thigh toward the body, a cure can almost certainly be effected; and I am sure that this is the case, provided the muscles have not been entirely converted into fat; but you can only ascertain that they have been entirely converted into fat by the use of this little instrument I have exhibited to you this evening, The reason why the ability to draw up the thigh is regarded as an indication of the possibility to effect a cure, is that the thigh is drawn up by the psoas and iliacus internus muscles, and it is exceedingly difficult, if not impossible, to galvanize these muscles. Consequently, when these lose their contractile power and become converted into fat, the child will never be able to walk freely without the aid of a crutch.

Communications.

INFANTILE DISEASES AND THERAPEUTICS.

By JOS. ADOLPHUS, M. D.,
Of Hastings, Mich.

(Continued from page 354.)

Hooping cough is often over-treated, and made fatal. The several remedies recommended for it during the last quarter of a century are comparitively worthless, if not really dangerous. Hooping-cough will, under ordinary circumstances, run its course safely, and come out "all right." But in some cases where the onset is sudden, and attended with high fever and bronchitis, the danger is then great, because of the shock imparted to the life forces. The dyspnœa is usually quite harassing, and the child suffers much from exhaustion. The nightly exacerbation of severity of the symptoms is often caused by inattention to temperature. The morning bad symptoms are due to the tough, tenacious secretions contained in both the bronchi and stomach. During this time our best course is to endeavor to maintain as even a temperature of the room in which the child lives as possible, with a proper ventilation, *without draft*. When the hacking and worrying cough is on, a good smart emetic of lobelia and blood root made from the concentrated tinctures of each. A good loud hoop is fine

music in a case of hooping-cough, for then we know that the nervous forces are still competent to the last; but on the contrary, a low, soft, half hoop, and a hacking, worrying cough, is almost sure to end in convulsions, or often in death.

The best treatment I have found for hooping-cough is a strong decoction of clover hay evaporated down to the consistency of a fluid extract; a teaspoonful of this, with one or two grains of bromide of ammonium every few hours. The emetic, as above recommended, from the concentrated tinctures of lobelia and blood root, twice a day, should never be neglected. Tincture of lobelia seeds, when concentrated, does exercise a powerful influence on the pneumogastric nervous system, and acts remarkably well in hooping-cough. Plenty of good nourishing and easily digested food, fresh air of an even temperature, proper clothing, and care to maintain the digestion intact, is all that is needed in ordinary cases. In severe and grave ones, the great dread is convulsions, pneumonia, and collapse of the nerve forces.

In such cases I have found chloroform, in two very severe cases in which convulsions occurred, to act well, given by the mouth. I administered it in six drop doses in treacle, along with two drop doses of tincture of Indian hemp. Some years ago a child suffering from hooping-cough was bitten by a rattlesnake. I administered whisky, the child recovered from both bite and hooping-cough at the same time, viz., in thirty-six hours. Two days after not a vestige of the hoop was to be heard. In two cases of the cough I used stimulants very freely, with excellent effect; but I think more of the fluid extract of clover hay, and the chloroform, than of all other known remedies.

Diphtheria is seen both as a primary and as a secondary disease. In the secondary it is the most intractable; the former is much easier handled, no doubt in consequence of the debilitated condition of the general life forces in the latter. Some writers have thought that croup and diphtheria were alike; while others deem an error of diagnosis a fatal mistake. I think both are wrong. However, I am satisfied that both are blood diseases, and their treatment much alike. The great danger in treating both these diseases, is being deceived by the exacerbation and remission, which lead often to the opinion that an increase of diseased action is going on. The difficulty of breathing in both diseases, which occurs often during the daily exacerbation, is oftener relieved by the warm bath, wine, and quinine, than otherwise. Diphtheria does not consume much time in premonitory symptoms, and the graver the case, the shorter is the prodromus. Albumen occurs in the urine of the worst cases from the very outset, and if it increases from day to day, the prognosis is very unfavorable. Death occurs by way of syncope in by far the great majority of cases. The main features of diphtheria are the exhaustion of the vital forces at an early day, and the false membranes; which latter are not confined to the mucus membrane of the air passages, and alimentary tract, but attack all other tissues, except the hardest; they are particularly liable to occur on blistered and abraded surfaces.

I some years ago saw a form of diphtheria accompanied with a red rash over the body, albuminuria, and ending with desquamation. This form of the disease was often mistaken for scarlatina. In many cases the progress was slow and tedious, and the large joints, as the elbows, knees, etc., would swell, and become painful. Some cases ended in general stiffness of all the joints, such as often occurs as a sequel in rheumatism.

I have but one treatment for diphtheria, which I have used for six years, with very satisfactory results. I control the fever with Norwood's tincture verat. viride, with half its quantity of saturated tincture of root of aconite, in doses of from one-half drop to two drops of the combination every hour, with which I use the following combination:

Potass. chlor., ℥j. Soft water, f.℥j; dissolve with heat, then add, acid nit., f.℥j; in fifteen minutes add muriatic acid, f.℥j. Inclose in glass stoppered bottle and keep in the dark. Of this f.℥ij., to f.℥viii. of water, a teaspoonful every hour with quinine. The false membranes are touched with glycerine, which removes them rapidly. Sometimes I use glycerine and tr. chlor. iron in equal proportions to the local mischief.

Food, essence of beef, milk, broth, and other strong food, in conjunction with stimulants is to be used. But we must avoid too much medication.

At the outset I often order a sharp emetic with good results, and repeat them through the treatment when the false membranes are troublesome. Lime water inhalations are of so much value in the treatment of both croup and diphtheria, especially the former, that I seldom neglect its use.

In croup I deny that calomel or antimony are of any utility. I have treated two cases in the same house, both membranous and inflammatory

croup, one with calomel and antimony, and the other by restorative treatment, using the lime water inhalations in both, and attending strictly to food and other necessary addenda alike, with very different results. First, the oldest of the children, a boy three years old, was treated with calomel, antimony, and quinine, in half grain doses every hour, after thorough vomiting by senega and antimony. This treatment was fairly tried. The boy recovered, it is true, but he was weakened greatly, and convalescence was slow, and emaciation was great. The second case was a child 18 months old. The treatment was commenced with the lobelia and bloodroot emetic as before mentioned, but not so strongly emetic, and pushed no further than a sickening effect. Cold was applied to the throat by ice bags, injections of beef essence and brandy in small portions, while a probang armed with glycerine was passed down the trachea with excellent good results. Vomiting was induced soon after, and the false membranes, tubes, and such, were thrown up. The lime water inhalations were used in both cases. The younger child made a rapid and perfect recovery. I regard the injection of food and stimulants per rectum of great value. In two cases I feel certain that they saved the lives of the children. There is a particular sort of exhaustion in croup from which children seldom recover. I refer to that state of the blood and nervous system that is induced by privation of air. I feel almost certain that food by the rectum modifies the influence of apnœa and gives the blood and nervous system more life and stronger resistance to death; the condition is something closely allied to a condition in tetanus I once observed in a child, after the convulsions and spasms were subdued; the child lived three days, and really died in consequence of some strange impression made on the nervous system. The symptoms were much like those observed in croup as above mentioned.

Continued fever in children is usually easily managed if we do not lay violent hands on them. The well marked exacerbation and remission of infantile continued fever, the irritability of temper, the nervous agitation, the loss of appetite, the disturbed sleep and restlessness at night, the cold hands and feet at certain hours during the day, with recurring flushes of fever during the middle of the forenoon or fore part of the evening, all tend to mislead the attention and refer the sympathy to a less grave form of fever. On the fifth day, however, well marked evidences of continued fever begin to show themselves. The remissions become less complete and are soon lost. The commencement of the second week then developes continued fever. The drowsiness of a child suffering from continued fever is more of stupor. It lies with its eyelids partly open and its lips apart, while there is a vacant look in the countenance. When aroused it starts rapidly and turns away with a peevish cry. There is a paleness over the face, but a blush is observed on each cheek, particularly that on which it lies. When spoken to, it answers short and peevishly; will pull away its hand when an attempt is made to feel its pulse. This stupor is mostly periodic. It comes on in the evening early and continues more or less profound during the night till morning; at about the middle of the forenoon it begins to relax, but it brings no change any further than the child is more awakened, but not more refreshed; if anything, more weak and exhausted. During this period of stupor, a very particular symptom occurs very often, which was, and is still, the cause of much malpractice. I refer to the child grinding its teeth and starting with a loud cry, and again reverting back to its lethargic sleep. This has often led to the idea of "worms," and treatment for their expulsion being adopted. It often occurs that many symptoms arise during continued fever of infants and children, stimulating brain disease, but I believe that if error at all is made, let it be on the side of letting the brain symptoms alone. The heat of the scalp and the trunk, and the harsh husky feel of the skin of the extremities, with the tumid and tender belly, gurgling fossæ, rapid pulse, dry and coated tongue, covered with but little epithelium, and the spots on the abdomen and thorax, tell us of continued fever.

I treat dozens of cases every year, and I hardly give any medicine during common continued fever. With mush-poultices on the belly, cool borax water lotions for the skin, and muriatic acid and food, I have no complaint to make. When the diarrhœa is troublesome, I order

R.	Chlor. potass.,	℥ss.
	Muriate ammon.,	ʒi.
	Water,	f.ʒiv.
	Nit. acid,	
	Muriatic acid,	ää f.ʒss.

A teaspoonful every two hours.

When the bowels are very loose and the evacuations quite thin, and separate into serum-like fluid and a flocculent dirty-white or brown fæcal matter, I never fail to use infusion of tea and muriatic acid, because then I can arrest the waste, stimulate the nervous system, and meet this bad state of things. These discharges are ever to be dreaded, because they hurry on ex-

haustion or death. When the head symptoms are troublesome, such as stupor, coma, delirium, I order tincture of ergot and wine. For a child a year old, I give ten drops of strong tincture of ergot and a teaspoonful of mild wine every three hours, with the tea. Quinine in muriatic acid in small doses at suitable intervals, say, four to eight times a day. When the nervous system is deeply implicated, and the pulse and respiration show signs of irregularity, quinia in large doses and tea in strong doses, repeated at intervals of two or four hours.

In treating these fevers, I push the food as far as I can within certain rational limits. The tea I do not advise only in such cases as show a severely shocked nervous system. Over-medication in infantile fevers must be avoided if we wish to cure our patients. I have seen three cases of typhus fever in infants under six months old. No treatment was pursued other than to keep the skin cool and clean with tepid water and careful nursing.

To be continued.

LIMOSIS AND PARAGENSIS.

By W. Marsden, M. D.,

Of Quebec, Canada.

Ex-President and Governor Col. Phys and Surg., L. C Corresponding Fel. Med. S., London. Hon. Fel Medico Bot. Soc., London. Hon. Fel. Pathological Soc., Montreal. Hon. Fel. M. Soc. and Lyc. Natural Hist., Berks. Hon. Fel. Medico-Chir. Soc., New York, etc. etc. etc.

The general pathologist is sometimes embarrassed to find a significant term or name for certain morbid conditions of the human economy or perplexed to find a system of nosology, to which to refer certain cases of diseased action, and such is my position in the present instance.

In the case I am about to narrate, there is morbid taste, as well as a morbid appetite, which renders a classification more difficult or complex. It will at any rate be conceded, that it is entitled to a place among the *cas rares*.

Many persons from birth, or some after period of life, are capable of taking an enormous quantity of food into the stomach, without any habit of indulgence, but who do not increase in bulk in proportion to the quantity taken; on the contrary, are often meagre and emaciated. Others, from mere habit, eat very much more than is necessary to carry on healthy vital action, and suffer correspondingly. Others again, live on an inconceivably small quantity of food, and enjoy perfect health. Others live and thrive upon a solitary article of food, constituting a *monivorous* class, if I may be permitted to originate the term; and others live entirely on fluids, and continue healthy. I am acquainted with a strong, healthy, active and lusty farmer, who resides in the District of Three Rivers, who has lived for very many years, entirely on milk, whose taste is perfect, and who enjoys his food exceedingly. I cannot at present, (but may hereafter,) refer to some interesting cases of this latter kind, for which I have been consulted; but will now confine myself to a solitary case, for which I am indebted to A. A. Andrews, M. A., M. D., of Windsor, Canada West, which I transcribe literally. It was addressed to me, dated August 26th, 1866, and is as follows:

"Engrossed as I know you are on the subject of cholera, I do not suppose that one disease wholly absorbs your study, but that matters of general interest in the profession obtain a share of your attention, and a very singular case having come under my notice yesterday, I have determined to transmit you an account of it.

"I was requested to see and prescribe for a patient of my friend Dr. Donelly. It was a well-marked case of jaundice. The patient informed me that she had never eaten in her life. 'Je n'ai jamais mangé de ma vie.' Taking this to be a mere *façon de parler*, and to signify merely that she had habitually a poor appetite, and for as long as she could remember had never made a hearty meal, I paid no particular regard to the statement: but closer investigation elucidated the following relation, which I have every reason to believe literally correct.

"Clothilde Chauvin, ætat 25; married four years since, to Joseph Mayeux; both parties born and residing at Pointe des Roches, in this county. When she was almost three months old, she had whooping-cough very severely, and the vomiting that attended it was protracted, and brought her to death's door. On weaning, every attempt to give her solid food, even in the most trifling quantity, and in the most attenuated form, was invariably followed by immediate vomiting. Bread, crackers, flour or arrowroot in the *smallest* quantity, added to her milk, never failed to be at once rejected. Her death from inanition was expected from day to day, and from week to week, but instead of dying, she throve wonderfully. It was then confidently predicted she could not survive her seventh year, but she passed that period without any sickness worth a moment's care. The age of puberty was then allotted as the utmost possible limit of her life, but she attained full womanhood without knowing what it was to be sick. Her (would be savant) friends now assigned her majority as the

period of assured death, but she preferred marriage, and at twenty-one was married to the aforesaid MAYEUX, and at twenty-three became a mother. She is now far advanced in her second pregnancy—the first time she remembers ever to have been sick. I asked her what her weight was, and she appealed to her husband, who said he believed it was one hundred and forty pounds. I am inclined from the size and solidity her arm to believe he underrates it. Working in the harvest field, she says, no girl ever went before her; playing on the hay-mow, neither boy nor girl could handle her. 'What do you live on?' I asked. 'A bowl of milk, with two tablespoonfuls of molasses, three times a day, and sometimes a lump of sugar, which I suck.' I observed to her, that if she had not tried to eat, she could not tell whether she could swallow or no. 'She said she had tried again and again, and that she *could swallow very well.*' 'Then it seems you *do* eat, only you reject what you have eaten.' 'Instantly,' was the reply. 'How long is it since you made the last attempt to eat?' 'Seven or eight years.' 'Have you eaten nothing since you were married?' 'No, nor for many years before—no kind of solid food has gone inside my lips; nothing but milk, molasses and sugar.' 'Fruit, raspberries, or strawberries?' 'I have put them on my tongue to see if I could taste them, but never attempted to swallow one; *but I have no taste, I can taste nothing.*' Whether this last statement is *absolutely* true, I did not ascertain by special inquiries, but she led me to suppose that salt, vinegar, or gall, alike failed to produce any impression; in fact, that the gustatory nerve was paralyzed or wanting.

"I would have pursued my inquiries further, but she had twenty-four miles to ride, and I did not feel warranted in taking up more of her time.

"The mere fact that existence has been maintained for twenty-five years on this diet, is not so amazing as the large amount of physical strength developed under it. Of the truth of the whole narration I have not the least doubt, and I think it a really surprising case. In appearance she resembles a stout, well developed French 'Habitant' woman." The Doctor adds: "I begin her history as she gave it to me, with the whooping cough, though how far (if at all) that is connected with the case, I am not prepared to say."

Such cases as the foregoing are very interesting, and show how much more important a part fluids play in the economy of nutrition than solids. Here we see milk doing the work of nutrition, as well as bread, beef and potatoes; and why not? Milk appears to partake of the nature of both animal and vegetable food. Milk contains casein, fat and sugar; and we have the casein or curd, and the fat or butter, representing the fibrin or fat of the beef, and, at the same time, a large proportion of sugar, which is much increased in MAYEUX'S case, by "molasses, and sometimes a large lump of sugar," which represents the starch of wheaten bread.

I hope soon to be able to return to this subject.

THE THERMOMETER IN THE DIAGNOSIS, PROGNOSIS, AND TREATMENT, OF DISEASE.

EXTRACT FROM ADDRESS OF

W. H. DRAPER, M.D.

Read before the New York Medical Journal Association, March 29th, 1867.

Reported by E. S. Belden, M.D.

There is no reflection, perhaps, more humiliating to the thoughtful physician, than that which arises from his frequent inability to interpret with precision the complex phenomena of disease. The conclusions of to-day, based upon what seemed to be sufficient and satisfactory data, may be falsified by the developments of to-morrow; and a diagnosis, the result of long and careful deliberation, may be entirely disproved by the revelations of a *post-mortem* examination. In this want of positiveness lies the reproach which has so long and so justly rested upon the science of medicine, as a science hardly worthy of the name. The progress that has been made within the last twenty years is slowly relieving medicine of this reproach, and the present aspect of our science justifies the hope that in a few years the stigma may be removed.

For the progress that has already been made toward the scientific interpretation of morbid phenomena, we are indebted to organic chemistry and the discoveries of experimental physiology; and, for precision in clinical investigation, to the use of the microscope, ophthalmoscope, and various other optical appliances for the study of particular parts in situ. The recent introduction of the thermometer for the more accurate observation of the phenomena of fever, promises to be one of the most useful improvements that have ever been made in the study of disease. It seems strange that a symptom so common and so significant as fever, so inevitably connected with the progress of almost every morbid condition with which we are familiar, should, until within a few years, never have been made the subject of accurate investigation, and never have been utilized, so to speak, as one of the physical phenomena by

which we could most easily defferentiate diseases and trace their natural history.

Fever has usually been spoken of as one of the symptoms of disease; but until the introduction of the thermometer, we have never been able to study accurately the variations of this symptom in the natural progress and termination of different diseases. The utility of the thermometer in enabling us to study accurately the phenomena of fever, and the advantages to be derived from this study in the diagnosis, prognosis, and treatment, of disease, we propose to make the subject of brief consideration this evening.

To appreciate fully the importance of clinical thermometry, it is necessary to bear in mind the nature of animal heat, and the causes of its physiological variations. The heat of the body is now generally admitted to be the result of the complex chemical transformations continually going on in the normal waste and repair of the tissues. The temperature thus produced is nearly uniform, and under all the normal conditions to which the body is exposed, rarely varies more than 2° Fahr. There are certain normal variations in different parts of the body. Thus, Bernard found the blood in the left side of the heart cooler than in the right side; owing, probably, to the cooling effect of the respiratory process. He also found the blood in the vena cava warmer than in the aorta; and in the hepatic veins than in the vena cava, in consequence of the activity of the vital changes in the chylopoietic viscera.

The results of the experiments of Davy, show that the normal heat of the body is subject to certain variations, dependent on the period of the day, exercise or repose, the ingestion of food or drink, and external temperature. The higher average temperature of infants and children is doubtless due to the greater activity of the vital changes in early life; the normal temperature of adults being taken as 98.4°, that of infants and children from 98.9° to 99.16°.

There is also a diurnal variation. The vital temperature being at its minimum during the night, and having its maximum during the early part of the day. This diurnal variation would seem to recognize also as its cause the greater activity of the vital functions in the early part of the day, and corresponds with the greater activity of the respiratory power and the excretion of urea. Exercise increases the temperature; and doubtless for the same reason, the increased rapidity of tissue change. The effect of the ingestion of food on the temperature has not yet been accurately investigated. In Dr. Davy's experiments there was an appreciable depression immediately after dinner, in England; though the reverse was the case in Barbadoes; but in both cases, Dr. Davy found that the use of wine caused a marked depressing influence on the temperature; the depression increasing with the quantity taken. This effect also corresponds with the influence which Edward Smith, Hammond, and others, have found to be produced by alcohol on the excretion of urea, and carbonic acid, by diminishing the rapidity of the retrograde amorphosis of tissue. The effect of the temperature of the surrounding air on animal heat is well known. The depression produced by cold, and the elevation produced by heat, are, in all probability, due not so much to the difference caused by atmospheric changes, the abstraction of heat from the surface, or of heat upon the surface, as to their direct effects upon the nervous system, and so upon the functions of organic life. The variation of heat in the healthy body has a direct and important bearing upon the changes of temperature of the body in disease, and enable us to interpret correctly the phenomena of fever.

The old definition of fever as given by Galen, was, "preternatural heat;" by Virchow, "fever, whether symptomatic or idiopathic, consists essentially in elevation of temperature, which must arise in an increased tissue-change," etc. The truthfulness of this definition is now generally accepted. In proof of it, Dr. Vogel found the amount of urea discharged, was increased in a case of typhoid fever up to 890 grains in a day; in another case of the same fever, 1065 grains; in a case of typhus, 1235; the normal amount scarcely exceeding 400 or 450 grains. Dr. Sydney Kingen has demonstrated that for each additional degree of heat in the body above the normal standard, there are a certain number of degrees of urea eliminated above the usual amount. Many theories on this subject have also been made by Drs. Parker, Vogel, Brattler, and others, in typhus, typhoid, and scarlet fevers; small-pox, diphtheria, pneumonia, and other febrile affections; and the results of these observations, certainly establish the fact of a relation between the degree of fever, the animal temperature, and the amount of tissue transformation. To establish what the exact ratio of increase is, will require a very large number of observations with reference to the amount of excretion; which will be very difficult and complex.

From what has been said, it will be readily seen that the study of fever as a symptom of disease is of great importance. How are we to recognize most accurately the degree of febrile action? The rapidity and strength of the pulse gives a

relative idea of the degree of heat; but it is *only* relative. The numerous variations of the pulse in health, prevent us from judging of disease by it with any great accuracy. The estimation of fever by the quality of the pulse alone, or by the sensation of heat conveyed to the hand, is very fallacious. Sensations of heat and cold are purely relative, and hence, different observers come to very different conclusions, judging of fever by this standard. The thermometer, giving the exact temperature of the body, is a most valuable aid in clinical investigations.

Let us consider simply the observations of WUNDERLICH, VIRCHOW, and others in Germany; BECQUEREL, and BERNARD, in France; and KINGEN, JENNER, and PARKER, in England; and what they have proved to be the prominent advantages to be derived from the use of the thermometer in disease. First, it is the only positive test of the existence of fever. It is valuable, therefore, as an aid in diagnosis. The existence of fever often escapes the attention of the physician until the disease has made considerable progress, and startles him by its gravity. The observations of KINGEN show that tuberculosis is shown by the occurrence of fever some time before it is manifested by physical signs. It has happened more than once, that typhoid fever has not been suspected until perforation of the intestine, or severe, and perhaps fatal hæmorrhage, has revealed the ulceration of PEYER'S glands. Again, it sometimes happens that a dangerous malady may be so closely simulated by an innocent one, or *vice versa*, that it will be almost impossible to differentiate the two, except by the thermometer. In this way we may distinguish cerebro-spinal meningitis from hysteria, and other innocent diseases.

Another way in which the thermometer is of inestimable value, is in warning us of the approach of danger in the course of disease. It is to the physician what the barometer is to the mariner, warning him of the coming storm. A sudden rise in the thermometer in the course of an acute disease, is the precursor of a new, and perhaps serious complication. A sudden rise in temperature in the course of acute rheumatism, is the earliest premonition of some visceral complication. A sudden fall in the temperature may apprize us of hemorrhage or intestinal perforation. A sudden rise in the temperature in convalescence, is always a sign of the approach of danger, or some serious complication; and the warning of this complication is very much earlier appreciated in this way than by any other means of investigation. When the thermometer falls into the hands of every practitioner, and when the number of its observations are largely increased; when the clinical records of disease shall be made by more precise and scientific methods, so as to present us with the natural history of diseases, it will be found that the thermometer is an indispensable instrument; not only because it enables us to appreciate the intensity of febrile action, but its varieties in different diseases.

The day is coming when we shall have diagrams illustrating the history of the vital phenomena and signs, and their natural progress, so that we shall be the better prepared to appreciate the abnormal conditions, and the means of controlling them. WUNDERLICH, who has made probably more observations with the thermometer than any other living man, has determined, for example, that in simple croupous pneumonia, where the temperature does not exceed 104°, Fahrenheit, the pulse 120, and the respiration 40 in the minute, the case may be considered a favorable one; will surely reach its crisis in from six to ten days, and defervesce, without any medical treatment, except proper attention to the ordinary hygienic and dietetic rules.

A proper and intelligent use of the thermometer in making regular and careful observations of the temperature alone, or in connection with other symptoms, will enable the physician to predict with certainty a fatal issue, or the probably near approach of death. This statement should be qualified by the remark that high temperatures have a relative value according to the nature of the disease in which they occur. For example, a temperature of 105° in erysipelas on the fourth or fifth day of the disease, would not have the same import as in acute rheumatism, at the same time. In the one case it would be in accordance with the natural progress of the disease; in the other, it would indicate a grave complication. Again, a temperature of 103–4 in the second week of typhus or typhoid fever, would not cause exactly the same apprehension that an equal temperature would in the third week of either of these diseases. Very high temperatures are very often registered in acute disease where favorable terminations occur. An abnormal course in the temperature of a disease, is of more prognostic importance than the particular degree, or simply a high range. The temperature may diminish while the pulse increases in frequency, and diminishes in force. A want of harmony between the pulse and the temperature is a symptom of serious import, then the other symptoms become more marked.

Another advantage to be anticipated from careful thermometric observations in disease, is the favorable influence exerted upon the therapeutical and dietetical management of disease, when we comprehend intelligently its natural progress. When we come to understand the natural history of a disease, we shall better understand how to interfere in its treatment. This use of the thermometer in the study of fever has done much toward the development of its treatment.

If there is a fixed relation between excretion and fever, then fever gives a standard measure of tissue metamorphosis. Clinical experience, though still quite limited, goes to show that the degree of fever does represent the rapidity of waste. If such, on farther observation, should prove to be the fact, it will be valuable information to us in its treatment, indicating quiet, and food to check the waste, and assist the repair. Regarding fever as the measure of tissue metamorphosis, we find that the true febrifuges were food and stimulants, and that the maxim of Graves to "feed fevers," and the more recent practice of stimulation may be defended on scientific grounds.

Though it has been common to indulge in generalities upon the value of thermometrical observations, such observations were first systematically made in the New York Hospital eighteen months ago, and since that time they have been regularly kept up in all the interesting cases of acute disease there. The results, so far as I know them, go to corroborate those of Continental and English observers. In private practice, I am constantly in the habit of using this instrument, and should feel at a loss without it. All that has been said in favor of it is fully justified by my experience with it. I use the instrument of Cassell, of London, which is graduated to fifths of a degree. I prefer it on account of its sensitiveness.

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By E. P. Banning, M. D.,
Of New York.

(Continued from page 379, vol. xv.)

Of the Management of the Balance in Retroversion.

First. If practicable, by the curved sound or otherwise, the uterus should be fully reposited at once, inasmuch as that will remove every obstacle to passing the curved balance to the cul-de-sac behind the uterus; and the sound, whilst being held by the patient or an assistant, acts as a director and tends to guard against the tendency of the balance to pass in *front* of the uterus, to strike the os, or to press the partially reposited uterus mid-way between the os and fundus. These mishaps are inadmissible and fraught with evil in several respects. After the introduction of the balance, the first care is to see that it does not impinge upon either the uterus or rectum, and that it is carried to the posterior cul-de-sac, always bearing in mind, that it is no part of the repositing process to operate upon the uterus directly. This is done only by elevating the expanded cul-de-sac. In this case, the T of the balance performs the double purpose of holding the uterine fundus forward to the centre of the pelvis, and of dragging the os back toward the sacrum. Thus, then, it is a matter of prime care not to be deceived by the ever pressing tendency of the curved balance to pass in front of the os, to press upon it, or to strike the retroverting body of the uterus. If it presses upon or strikes the os, the os will be carried forward and higher, and the retroversion will be aggravated, much as a fallen man would be helped by lifting his feet and not his shoulders. It would also tend to produce irritation, congestion, and ulceration of the cervix. If it strike the body of the uterus, then, if there is a flexion, it will increase it, and if not it will induce one. It must also tend to aggravate or to provoke a morbid condition of that organ, and to produce pain and tenderness, with a variety of sympathetic concomitants. As such mistakes as the above tend so forcibly, not only to thwart the desired consummation of the cure, but also to cause the last state to be worse than the first, the practitioner should not only be very careful to avoid them by placing the balance right, but also should be vigilant in seeing that the instrument does not slip to one side, or *settle from its true position* after it has been once properly placed.

This may occur either from some meddling of the irritable patient, or from some imperfection in the manner of connecting the balance to the external brace. Such a mishap should always be suspected whenever the patient complains of pain in consequence of the internal instrument, especially when it occurs after it has been once worn with perfect comfort.

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time, gentleness, and perseverance, will accomplish it.

Of the Curve of the Balance. It should be remembered that it is claimed as one of the excellencies of the balance, that its extremity performs the repositing, no other portion of the instrument more than touches the surrounding parts, and occupies no more of the pelvic space than would a vertical *pipe stem:* consequently, it is evident that the curve of the instrument must so correspond to the curve of the sacrum as not to impinge upon anything in its vertical occupation. Should the curve be too great in any one case, it may cause great annoyance, such as pains and cramps in the limbs, pain in the sacrum, and distress generally, from pressure on some of the sacral nerves, or by direct pressure upon the rectum or hemorrhoidal veins, constipation by obstructing the foecal descent, and piles by obstructing the ascent of the hemorrhoidal blood, may be induced. It is important, therefore, not only to place the superior portion of the balance right, but also, *to see* that the *curve* of the balance does not impinge upon the rear portion of the pelvis; and, when any of the aforesaid symptoms occur in connection with the balance, they may be suspected to originate from the above causes, and the curve must be diminished.

How to Change the Curve. First; smear well with olive oil; then hold it over a gas light (high enough not to burn it in anywise); as soon as you find it yielding, change the form to suit, and hold it thus until it cools. A very slight change makes a great difference. As a general rule, when a change in the superior curve has been made, that creates a necessity for an opposite curve in the inferior portion near to the vulva guard, in order to preserve its perpendicularity, as the fulcrum of a purely vertical action.

Of Retaining the Balance in Situ. Being now satisfied that all is correct, I slip the accomodation vulva guard on to the tenon of the protruding balance and fasten it against the shoulders of the tenon by a nut, leaving the guard sufficiently loose to secure a uniform bearing. This guard is composed of hard rubber, and so constructed as to close the meatus and admit of urination and defecation with the instrument in tact. It also serves to guage the ascent of the T and to protect against excessive or irregular pressure under any contingency. After one perfect adjustment of the balance, it will be unnecessary to remove the guard for successive insertions.

Next, the patient will turn upon her back, and the curved elastic and thin spring, which has been previously screwed to the front bar of the abdominal and spinal shoulder brace, will be brought down, and one of its mortices slipped over the tenon of the balance and resting against the guard; this will constitute the aggressive and protecting, yet gentle force, which both retains the balance in situ and supplies a yielding and undulating power. It also gives a perpetual protection against a tiresome pressure, under the motions of the body, much as do eliptic springs under a buggy to weak passengers. As one remarked, "it seems as if the womb was mounted on a buggy." This, by the way, is another difference between the action of the balance and of the unyielding pessaries.

Of the Amount of Support to be Given. On this point, we have ever been guided, first, by the effect upon the patient's sensations, having early learned by dear experience, not to be too ambitious of elevating the uterus too high, or too rapidly. In nervous temperaments, to suddenly elevate the long prolapsed, verted, and flexed uterus, to more than its normal height, will often induce paroxysms of hysteria, together with prickling and drawing pains in the pelvis; and should the organ be elevated *above* its natural position, the undue traction of the uterine ligaments and nerves, induces more or less constant desire to urinate, with an uneasy, and ultimately, a painful sensation of pulling and tightness, with cramps in the course of the uterine guys.

Where there is the least symptom of these, the balance should be immediately shortened, for as time is with us, it is better to at first support moderately, and afterward, increase gradually to the proper extent. Secondly: It is an axiom with me, to stop a little short of restoring the uterus quite to its normal height, on the physiological idea that we should never so completely support the uterus as to leave nothing for its natural supports to do; and also, that if we stop just a little short of the fullest support, the exhausted and overtasked ligaments will be both *provoked* and *encouraged* to evoke their remaining energies under the *rest* of the balance, and the *exciting* and *undulating action* of the external spring on which it rests. In a word, *good sense* must be the guide; and I close on this important point, first, with the confession, that in two or three cases during my earlier experience, I seriously jeopardised the prospects of the patient, by being too ambitious of a sudden and extreme elevation of the uterus; and second, with the injunction, to leave *something* for the natural uterine supports to do.

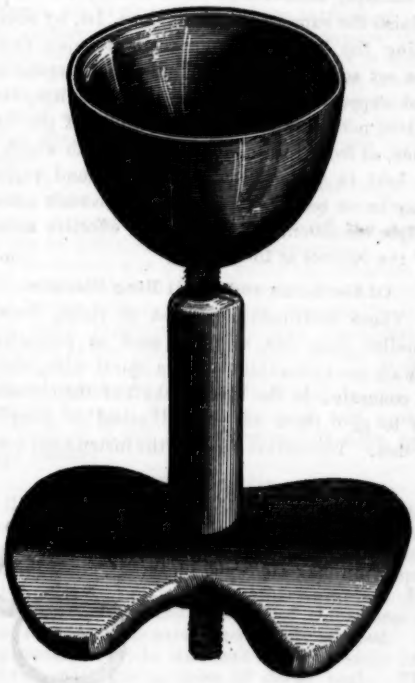
Of an immovable condition of the Uterus in versions and flexions. But we have not unfre-

quently, to contend with serious contingencies, which require the full exercise of courage and discretion. These come in the form of great tenderness from congestion, chronic inflammation, adhesions, and a locked or packed condition of the uterus; particularly, where the case is complicated with flexion. In such cases, the uterus being not only immovable, but very low in the inferior strait, the fundus on the perineum and imbedded in the rectum, anything like the ordinary length of the balance cannot be brought to bear for want of room. Yet the balance *must* be used, so as to gradually wedge in between the rectum and fundus, and stealthily and steadily lift, or the patient must be abandoned to hopeless suffering. Another thing; in such cases; the unoccupied track from the posterior commissure of the meatus to the uterine fundus, is almost directly backward, and parallel with the perineum, so that, saying nothing of the length, a balance of the ordinary curve, (though short enough,) could not be brought to *bear* between the fundus and rectum, but the T would act in the upward direction, against the *body* of the uterus, and so excite pain, with no prospect of success; therefore, it must pass almost *directly back*, in order to separate the fundus from the rectum. In such cases, the length of the balance admissible, must be ascertained by the finger or a sound, and the following changes in the curve of the balance be made in the manner before indicated.

First, the intro-vaginal portion of the balance must be nearly straight, because the short passage is straight. Next, in order to tip the T far enough back, a very *short* curve must be given to the vulvur portion of the shaft. In this way, you can commence, and as soon as is feasible, the T may be elevated, by means of the set screw near it, not forgetting that as fast as the T is permitted to rise on the sacral plane, the former curve must again be given to the balance, in order to preserve the vertical action, and avoid pressure upon the superior rectum. But after all that can be said, so varied are the peculiarities of cases, that a vast amount must be left to the good sense, discretion and ingenuity of the practitioner.

Of the management of the straight Balance (No. 5) in Anteversion and Flexion. In anteversions and flexions, the balance is straight, and, as a matter of course, is to pass in *front* of the uterus to the anterior cul-de-sac direct, without impinging upon the bladder or uterus. Comparatively, this is far more easily accomplished than in retroversions, as, in ordinary cases, the balance spontaneously takes its proper position in front. Nevertheless, there are several things to be guarded against, viz., 1st, the T of the balance is liable to strike the body of the uterus, and not between the uterus and bladder. This mistake is totally inadmissible, as it not only tends directly to induce irritation, congestion, inflammation, etc., but also, to cause a *flexion*, and to aggravate one where it previously existed. This is easily remedied; 1st, by pushing the protruding end of the balance further back toward the posterior commissure, by slipping the tenon through the first mortise; 2d, by making a sharp curve in

FIG. 5.



the shaft of the balance near to the guard. Either of these, properly and fully carried out, will thoroughly meet the emergency; provided, the curve and strength of the depending spring is such as to snugly hold the balance from *settling*, after it has been once properly placed. It is necessary to look carefully to this latter point, as a defect here often thwarts our object unsuspectedly. 2d. The T of the balance may strike the body of the bladder; in other words, pitch too far forward, inducing a sense of sickening, bearing, or pressing on that organ, with a constant desire to urinate, and an indisposition to stand erect. This is readily remedied; 1st, by drawing the tenon of the balance forward toward the pubes,

by slipping it through the second and third mortise in the depending spring; 2d, by making a curve in the shaft of the balance, whereby the T is pitched back from the bladder; 3d, the balance may be too long, and give too much support, producing a sensation of tightness, strain, and uneasiness in the region of the uterine ligaments, with some difficulty in voiding urine; also, more or less nervousness and hysteria, with a feeling as though they "must strip the whole apparatus off at once." Such an undue support also tends, sooner or later, to induce a tender and ulcerated condition of the cul-de-sac, and to induce an exhausting leucorrhœa. The remedy is,—to diminish the support. This is done, 1st, by shortening the balance, by gradually turning down the set screw; 2d, by straitening the depending and supporting spring; for the difficulty often arises, not so much from the *length* of the balance, as from the *unyielding* vigor with which it is held in position; 3d, the uterus and vagina may be so tender, and there may be such a neuralgic condition, as to forbid the effective action of the *balance* at the first.

Of the Large and Small Ring Elevator.

These instruments consist of rings, (much smaller than can even be used as pessaries,) which are so mounted upon a spiral wire, which is concealed in the hollow shaft of the elevator, as to give them an easy elliptical or jumping action. This action renders the instrument much

Fig. 6.

less irritating to the cul-de-sac, and preserves the normal undulating movement of the uterus, as in respiration.

These varieties of inter-pelvic supports are only adapted to those forms of procidentia or prolapsus which are not fully met by the abdominal and spinal shoulder-brace.

In the most extreme of these conditions, in connection with the abdominal and spinal shoulder-brace, and the connecting curved and depending spring, these instruments are positively and summarily sovereign, without distension of the vagina or any pressure upon the os or cervix.

Fig. 7.

The smaller elevator is designed for young patients, and all cases where there is a *rigid* and *irritable* condition of the external parts, but must not be applied when there is an ulcerated or congested condition of the os or cervix, as the chances are that so small a ring might impinge upon the diseased point.

This form of internal support requires much less skill in its adjustment than do either of the others, the instrument rather spontaneously assuming its proper position.

It is shortened or elongated by turning the ring on its set-screw; and if it requires special shortening, it can be accomplished by cutting off a piece of the spiral wire, which is concealed within the hollow shaft. To do this, remove the sliding piston by punching out the small pin, at the top of the hollow shaft, and the spiral wire will readily fall out, and may be clipped off by strong scissors. Then return the wire to the shaft, put in the sliding piston, and fasten with the pin as before.

It is intended that this instrument shall be shortened and gradually withdrawn as the patient improves. As a general rule, it is safer for a time

to continue the use of the abdominal and spinal shoulder brace after the elevator has been entirely withdrawn.

Of the Bifurcated Elevator.

This instrument is also designed for cases of simple subsidence of the womb; more especially when the ovaries, fallopian tubes, and round and broad ligaments, are not in a condition to admit of the pressure at the lateral angles of the uterus, which the oval ring usually exerts. In such cases, the bifurcated variety entirely obviates this contingency, as it acts only at the forward and back portions of the cul-de-sac. Not being quite so manageable by the uninitiated patient, its sphere of usefulness is comparatively circumscribed.

Lastly, be it remembered, that after the professional adjustment of either of these instruments has been once properly effected, the patient soon becomes perfectly competent to afterwards remove and introduce them herself, and ultimately to dispense with their use.

Hospital Reports.

JEFFERSON MEDICAL COLLEGE,
April 24th, 1867.

SURGICAL CLINIC OF PROF. GROSS.

Reported by Dr. Napheys.

Sebaceous Tumor.

Mrs. D., æt. 40. She has had a tumor for the last twelve years, immediately beneath, and partly covering the lobe of the right ear. The cause of its appearance is unknown. There is no discoloration of the skin, and the part has been painless until within the last few weeks. The tumor is soft and fluctuating.

This is a sebaceous tumor. An attempt to remove it by enucleation would be difficult on account of the softness of its contents, and the attenuated condition of the skin and sac. An incision was therefore made into it, and its contents, retained sebaceous substance, changed in its character in a very remarkable degree from long retention; turned out the cyst, which was very thin, and firmly adherent to the skin, was then carefully dissected out, as, if the slightest portion were allowed to remain, it would lead to a new production.

Remarkable Morbid Growths.

Mrs. Mary F., æt. 37. At the last clinic Professor GROSS injected into the larger, as well as a few of the smaller tumors on this woman's chest, dilute acetic acid, according to BROADBENT'T suggestion, vide p. 357. She suffered from a violent rigor after the operation. The parts have bled somewhat since the injection.

Altogether, this is a very remarkable case, on account of the extent of the disease, the naked condition of the tumors, deprived, as they are, of skin, the rapid increase in the larger tumors within the last few months, and the number of the morbid growths, nearly two dozen, clustered together. The discharge is thin, ichorous, sanious, or sanguinolent and offensive, so much so, that she is obliged to use permanganate of potassa as a de dorizer. The disease made its appearance seventeen years ago, when, consequently, she was at the age of twenty. It seems to be confined entirely to the skin, not involving apparently the subcutaneous tissues. It is very uncommon indeed to see so large an amount of substance without any cutaneous covering.

It is a favorable circumstance that these tumors are of such long duration, but they look very much like epithelial, cancroid; or, as Professor Gross would prefer to call them, scirrhus growths of the skin. The word epithelial, as applied to tumors, ought never to have been introduced into the nomenclature of surgery, for tumors thus designated differ from scirrhus, such as is liable to occur in the mammary gland, liver, uterus, and other parts of the body, only in the epithelial matter which they contain, which is derived from the skin, or the skin and mucous membrane.

It is proposed to ligate some of the larger tumors, which appear to be attached by a comparatively narrow pedicle. The use of the knife might be followed by serious hæmorrhage.

The woman was placed under the influence of chloroform. A stout ligature was thrown around the largest tumor, which was remarkably soft and very vascular. There was considerable bleeding at one point, which was checked by the application of charpie, steeped in MONSELL'S solution—the most powerful of all the styptics at present known. The fungous mass will probably drop off in the next three or four days, perhaps sooner.

Caries of Tibia.

Robert W., æt. 22. This patient came under Prof. GROSS's care a year ago this month, on account of caries of the lower portion of the tibia and fibula of the right leg. He had been operated on twice previously by other surgeons. He was placed under the influence of chloroform at that time, and the parts extensively scraped. A few weeks after, he was sent home greatly improved, with the promise of doing well. The disease either returned or was not entirely removed, and he came back last November, when he was brought before the class and another scraping operation performed, (vide p. 88.) The result has been a perfect cure on the side corresponding with the fibula. On the tibial side the disease is nearly eradicated, but there is still evidently a little morbid action going on at the posterior part of that bone. It is deeply seated, and the difficulty in both the operations performed on this man, has been to reach all the diseased structure. The posterior tibial artery is close by, and it is therefore necessary to proceed cautiously, that it may not be wounded. If the slightest particle of diseased structure escape removal, it may be sufficient to keep up the morbid action.

There was great enlargement of the foot and ankle, and of the lower part of the leg, from long continued inflammation, when the patient

was at the clinic last November. This was especially true at the time of the first operation referred to. This swelling has in great measure disappeared, and his general health is excellent.

He was placed under the influence of chloroform. The opening on the inner side, just above the ankle, was enlarged, and the chisel brought in contact with the posterior surface of the tibia, which was found to be rough, the denuded surface extending nearly down toward the ankle-joint. By means of a bore or drill similar to that employed by the dentist for cleaning out the cavity of a tooth preparatory to the operation of plugging, the softened portion of the bone was removed—care being taken to avoid wounding the posterior tibial artery. The parts were then thoroughly syringed out, to get rid of the broken down bony tissue made with the instrument, the retention of which would be followed by unpleasant results. A full stream of water should always be used after these operations upon bones, and during the after-treatment the parts should be washed out once, if not twice, in the twenty-four hours. Nothing further will be necessary except the application of a solution of sugar of lead, keeping the patient at rest in a recumbent posture, and enjoining a light diet and an aperient to-morrow.

Caries and Necrosis of the Foot.

Mr. P. This man was here at the last clinic (vide p. 356), on account of disease of the bones of the left foot, of several years standing. The left limb has become much emaciated. On comparing the two, a vast difference in size is observed, in consequence of the wasting of the muscles and the absorption of the fat in the affected leg, caused by a change in the nervous fluid, an impairment of the nutritive function. The small bones of the foot are involved. There has evidently been synovitis, whether inflammation of the cartilages of the joint, it is impossible to say. If it were certain that the structure of the tibio-tarsal articulation was involved, amputation would be preferable to any other operation. There is a great deal of disease, and it may not be possible to save the limb.

Chloroform was administered. On introducing the probe into the opening in the inner side of the foot, it came at once in contact with a rough denuded surface, grating on the parts. An incision was made on that side, the chisel introduced, and disintegrated bone removed in abundance. Necrosis as well as caries was found to exist, some portions of the bone being dead, others in a state of ulceration. The opening in the outer side was next enlarged and a great amount of bone removed. Surgeons fond of excision, would, in this case, make large flaps, and remove portions of the bone with forceps, but Prof. Gross prefers to operate in this way, knowing from long experience, it is perfectly safe and generally efficacious. The operation was a tedious one. Scarcely any blood was lost.

The large cavity extending from one side of the foot to the other, was carefully washed out, and a strong solution of acetate of lead and opium was ordered to be applied, the limb being kept at rest in a relaxed condition. So soon as he recovers from the effects of the chloroform, one half a grain of morphia will be administered. His diet should be plain, simple, and nutritious, with a little milk punch. To-morrow he will take a mild aperient of rochelle salts. Prof. Gross has never known violent inflammation, much less mortification, to supervene upon an operation of this kind.

It may be necessary at some future period to operate on this man again, but it is now quite certain that his limb will be saved.

There are two states of the system very prone to be followed by caries and necrosis, one the syphilitic, and the other the strumous. Caries is more apt to affect the articular extremities of the long bones, and what are called the short and broad bones, which are composed chiefly of areolar or soft tissues. Necrosis, on the contrary, is more liable to occur in the shafts of long bones, which perish readily from inflammation, not having in them much vitality, much capacity for resisting the encroachment of disease.

Chronic Dislocation of Elbow.

L. M., æt. 13. This patient was at the clinic two weeks ago, (vide p. 331), on account of dislocation of the elbow-joint, received last November. The symptoms are well marked, typical, viz., the cord-like prominence of the triceps, the remarkable projection of the external condyle, the shortening of the distance between the bend of the arm and the wrist-joint, the difficulty of pronation and supination, and the unusual prominence of the olecranon process.

It is entirely too late to attempt reduction. There is nothing more easy than to reduce a dislocation of this joint of recent standing, and nothing more difficult after the expiration of a fortnight or three weeks; while it is utterly impossible after several months have elapsed. Prof. Gross has seen very many cases, and in the attempts at reduction which he has made after the expiration of three or four weeks, he has signally failed.

In this case, if the olecranon process could be broken subcutaneously, it would give a great deal of motion to the articulation. The olecranon process, in cases of this kind, is apt to become softened by the extension of inflammation from the synovial membrane to its substance, rendering it thus more brittle, and more easy to break by forcible flexion of the limb, than it would be in the natural state. But unfortunately the softening is not confined to the olecranon process. It sometimes affects the upper extremity of the ulna, beyond the olecranon, as well as the radius, when the dislocation involves both bones, and also extends to the condyles and lower extremity of the humerus, so as to render them liable to give way under forcible manipulation.

The boy was placed under the influence of chloroform, and forcible extension and flexion instituted, with the effect of bringing about greater latitude of motion, although the olecranon process was not fractured. Flexion was so far restored, that the forearm could be bent to nearly a right angle with the arm. A lotion of acetate of lead was ordered to be applied to the part.

Medical Societies.

MEDICAL SOCIETY OF WEST VIRGINIA.

The physicians of West Virginia met last month, at Fairmount, and formed a Medical Society for that State. A fair representation of the profession of the State was present.

The Constitution adopted prescribes the qualifications for membership to be (1) "graduating at a respectable school of medicine and a strict observance of medical ethics, without stain of charlatanism," or (2) "having attended but one full course of lectures and been in respectable practice for five years," or (3) "ten years of respectable practice and an examination by a committee of the society in the absence of lectures."

Wheeling is to be the next place of meeting.

The Committee on Nominations for permanent officers of the Society reported as follows:

For President—Dr. JOHN FRISSEL, of Wheeling.

Vice-Presidents—Drs. JESSE FLOWERS, MACKEY, and LAZZELL.

Secretary—Dr. JAMES E. REEVES.

Treasurer—Dr. J. C. HUPP.

Committee on Publication—The Secretary and Treasurer, with Drs. BROWNFIELD, WEISEL, and SHEPHARD.

On motion, Drs. BROCK, CAMPBELL and RAMSEY were elected delegates from this Society to the American Medical Association, which will meet in Cincinnati on the 7th day of May.

The Committee on Nominations nominated Drs. MANOWN, MACKEY and SHARP as a committee to appoint two essayists for the semi-annual meeting in October next. The committee appointed as essayists, Drs. LAZZELL and BROCK.

On motion of Dr. RAMSEY, the Committee on Publication was instructed to cause to be published, in pamphlet form, the proceedings of this meeting, together with the code of ethics of the American Medical Association; and also to have printed certificates of membership in the Society.

Dr. CAMPBELL moved that the question, "Is the disease called progressive locomotor ataxy a distinct disease from general paralysis?" be made the subject of general discussion at the next meeting of the Society.

Dauphin Co. (Pa.) Medical Society.

At a recent meeting of the Dauphin County Medical Society, Drs. JOHN CURWEN, W. W. RUTHERFORD, S. S. SCHULTZ, R. A. MARTIN, H. O. WITMAN, S. MOORE FINLEY, and H. W. BISHOFF, were elected delegates to the State Medical Society, to be convened in June at Pittsburgh.

—— Dr JAMES ROGERS, of Lancaster, Pa. recently deceased, bequeathed $10,000 to the "Mayor, Aldermen and citizens of Lancaster, Pa.," the interest of which is to be expended in the improvement of the streets of that city, under the direction of the Mayor.

EDITORIAL DEPARTMENT.

Periscope.

Viburnum Prunifolium in the Treatment of Threatened Abortion.

Dr. D. L. PHARES of Newtonia, Miss., reports in the *Atlanta Med. and Surg. Journal*, his experience with the *viburnum prunifolium* in threatened abortion. He says:

This small tree grows in rich, dry woodlands from Florida to the Mississippi river, and northward. For description, see Chapman's "Flora of the Southern United States," and other works. The part used is the bark, ʒss to ʒj, in powder; infusion f.ʒss; or saturated tincture f ʒj.

It is nervine, antispasmodic, tonic, astringent, diuretic, and may be used to very good purpose in urinary affections, ophthalmia, aphthous sore mouth, chronic diarrhœa, dysentery, indolent ulcers, etc. It is an excellent remedy in colic, cramp, spasms, palpitation, and other affections incident to pregnancy, or arising from uterine disorder, and for after pains. But it is particularly valuable in preventing abortion and miscarriage, whether habitual or otherwise; whether threatened from accidental cause or criminal drugging.

It tones up the system, preventing or removing those harassing nervous symptoms that so often torment, wear down, and disqualify the pregnant woman for the parturient effort. It enables the system to resist the deleterious influences of drugs, so often used for the purpose of procuring abortion. It is well known, that the inner bark of the cotton root is used by many to induce miscarriage—one pint of the strong decoction being sufficient for this purpose. The regular exhibition of the viburnum completely neutralizes the effect of the gossypium, compelling the delinquent mother, however unwilling, to carry the fœtus to full term. Some farmers, on whose plantation I have used this medicine, and who have seen much of its effects on negro women who always managed to miscarry, declare their belief that no woman *can* possibly abort if compelled to use the viburnum. This may be claiming too much for it; but it has certainly prevented abortion in every case in which I have ordered it for the purpose. Negatively, miscarriage has never taken place, so far as I am informed, in any case in which this medicine was used as a preventive.

We give the notes of two or three, only, of his cases.

Case I. Mrs.—, widely known as an authoress, of very pale, delicate appearance, aged about 27, when some three months married, aborted, from injury received in leaping from the floor into bed. Once or twice subsequently, she aborted at the same stage of pregnancy; once, I learned, twins. In August she came under my care for severe intermittent fever; and, on 16th September, 1864, being again pregnant, she consulted me with a view to prevent abortion. I ordered tincture viburni, f.ʒj bis, *vel ter in die;* oft-

ener, when threatened, till the danger is passed. She continued going on well for more than three months after the usual time for her misfortunes, when, removing beyond my reach, I lost sight of her. Several times she had to use the medicine very freely. I think it was on the 6th of October, an artillery and cavalry fight took place near the house where she was boarding; her husband, wounded some time before this, was compelled to fly for safety; charges were made through the yard; a number of soldiers were killed about the place; the house was ransacked; and an old gentleman living with the family murdered; yet she passed safely through this time of excitement and trial.

Case II. In March, 1865, Mr. W. consulted me in regard to his wife. He said she had never gone to full term, but had had several children at the eighth month, all of them dying one month after birth. Frequent pregnancies and hemorrhages had seriously impaired her health, for improving which I ordered suitable remedies. To prevent premature parturition, she being again pregnant, I directed tincture viburnum. At the eighth month, as usual, labor commenced vigorously, with copious sanguineous discharge. Both were soon arrested by a free exhibition of the viburnum. She went on to full term, and gave birth to a healthy boy, who still survives at a year old.

Case III. Mrs. M.—, mother of several children, has, for several years, suffered much from dysmenorrhœa, leucorrhœa, hemorrhages, and abortions, and is pale, feeble, and despondent. I ordered iron by hydrogen, to improve the blood and nervous system, Fowler's arsenical solution, to check leucorrhœa and prevent hemorrhage, and tincture viburnum to allay uterine congestion, pain, irritation, and to tone up the reproductive organs. Some months afterward, March 2d, 1865, I was summoned in haste to see her. She was much improved every way, and supposed two or three months' pregnant. Two bodies of troops had been ordered to form a junction and prepare for battle, instantly, at a point a mile distant, but visible from the upper story of the dwelling. Running hastily up stairs to see the array, she was hurt; pains commenced, and, almost immediately, pretty free hemorrhage, which alarmed her excessively. A viburnum tree growing within a few paces of the house, I ordered infusion of the bark, which soon put a stop to both hemorrhage and contractions. On the 16th August following, before day, she was alarmed by the escape of liquor amnii, and I saw her early in the morning. As there was no pain, contractions, or other indications of labor, I left her. This was a small leak, and she informed me that labor had been brought on in a previous pregnancy by a similar leak. About dark of the next day, forty hours after the flow commenced, I again saw her, and at 11 P. M., delivered her of a healthy eight months child, which still survives.

—— Dr. L. D. Seymour, formerly a surgeon in the war, remains among the freedmen of the Hampton district, Va., doing acts of practical philanthropy.

New and Wonderful Discovery in Electricity.

Mr. H. Wilde, of Liverpool, has brought out a new discovery in electricity during the past year, which is described as exceedingly brilliant and important. He has found a method of producing electricity in quantities and intensity hitherto unknown, by the action of feeble electrical currents upon powerful magnets. His apparatus consists of six small permanent magnets weighing only a pound each, a ten-inch electro-magnet weighing three pounds (which accumulates and retains the developed electricity, on the same principle as an insulated submarine cable or the Leyden jar,) and an armature revolving within an iron cylinder at the rate of fifteen hundred turns a minute. The cylinder is about a foot long, and has a bore of two and a half inches; the armature which plays within it not touching the sides, is coiled about with insulated copper wire. It is from this armature, when the different parts of the apparatus have been connected and put into operation, that the electricity is evolved and the effects are produced.

This machinery evolves a light which rivals the sun in its dazzling luminousness, and surpasses that orb in taking photographs. At a distance of a quarter of a mile it throws shadows from the flames of street lamps upon a wall. Two photographers in England have set up the machines in their shops and now do all their copying and enlarging by the new electric light at night. The heating power of flame is so intense that it melts seven feet of no. 16 iron wire and heats to a red heat twenty-one feet of the same wire in an instant. The cost of the apparatus is small, the waste of materials trifling, and the expense of working light. For lighting streets, for lighting houses, and for illuminating public buildings the new discovery is far superior to gas, and there are probably various other purposes besides those already indicated, to which it may be devoted, if its properties are truthfully described.—*Boston Journal.*

A Lead Pill, and what came of it!

The coroner of the parish of Charlesbourg, near Quebec, held an inquest on 22d March on the body of one Nazaire Bedard of St. Pierre; who died on Sunday night, the 17th, of inflammation or rather gangrene of the intestines. This man had been under the medical charge and treatment of Dr. Rousseau, from the 11th, who had visited him and prescibed for him from the 11th to the 16th;—the day before he died. It appeared in evidence that on the 13th he was visited by a "quack" from Beauport, of the name of Legaré, who remained till next day, when about nine in the morning, the unfortunate victim swallowed a pill prescibed by him, consisting of a half ounce leaden bullet! Dr. Marsden, who conducted the *post mortem* examination, found the bullet in the cœcum, which was enormously distended and in a state of gangrene, as well as a portion of the colon. The intestinal canal throughout was highly inflamed, especially the ileum. Dr. Marsden gave it as his opinion that although the bullet was not the immediate cause of death, it had aggravated the symptoms

and somewhat hastened the fatal crisis. It was proved by the wife of the deceased that LEGARÉ came very reluctantly to visit her husband and did not urge the swallowing of the bullet, but merely said he had given one to a man at Lorette, on whom it had acted by opening the bowels, and if BEDARD chose to try it he might do so; and that deceased determined to take it, on his own responsibility. The jury returned the following verdict:

That the said NAZAIRE BEDARD, on the 17th day of March instant, of gangrene of the intestines, did die; and jurors are of opinion that one OLIVIER LEGARÉ of the parish of Charlesbourg is greatly to be blamed for having, on the 14th of the said month, during the illness of the said BEDARD, caused him to take and swallow a leaden bullet of over and above the weight of one half ounce, which leaden bullet may have accelerated his death.

LEGARÉ who was present at the inquest, seemed deeply sensible of his situation and error; especially when the body was opened before him, and the injury exposed. After the rendering of the verdict, he addressed the Coroner in feeling terms, and stated that he was frequently compelled against his will (as he had been in the present case) to visit the sick; but that he had now received such a lesson as he would never forget; and nothing should again tempt him to commit the illegal and criminal act of practicing medicine without license.

Reviews and Book Notices.

Obstetrics; the Science and the Art. By Charles D. MEIGS, M.D., Lately Professor of Midwifery and Diseases of Women and Children in Jefferson Medical College at Philadelphia, and one of the Physicians to the Lying-in Department of Pennsylvania Hospital; Member of the Society of Swedish Physicians at Stockholm; Corresponding Member of the Hunterian Society of London, etc., etc. Fifth Edition, Revised. With One Hundred and Thirty Illustrations. Philadelphia: HENRY C. LEA, 1867. 8vo., pp. 760. *Price*, cloth, $5.50; sheep, $6.50.

To any one whose professional recollections of Philadelphia go back a quarter of a century, there is a personal as well as literary interest connected with the issue of another edition of this work of Doctor MEIGS. We do not, in turning over its pages, feel at all in the mood for criticism. Rather, under the charm of its familiar style, we are inclined to give ourselves up to the unsophisticated admiration of student days; to hear the mellow voice and regard the graceful form of the Professor, in the amphitheatre, or by the bedside, as of old. We cannot, in such a presence, carp at, or question rigidly, the theory of the endangium, or that the nerve-mass is the animal, that puerperal fever is non-infectious, or that venesection is its cure. We are content to listen, and to reason another time; "sermons, and soda-water the day after." No better obstetrician, or more persuasive teacher, ever taught and practised in this city; and this is his Text-book. Four large editions of it have already been exhausted. We hope sincerely that its venerable author may be mistaken in anticipating that this will be its last.

Not attempting, as we have said, to criticise the book, it may simply be observed, that Dr. MEIGS adheres, upon mooted points, essentially to his former teachings. Not ignoring recent discoveries by any means, as shown by his full adoption and appreciation of the doctrine of periodical ovulation, he is not satisfied that evidence exists which ought to change his mind upon any important subject.

Among the practical topics discussed, attention may be called briefly to that of the pathology and treatment of *placenta prævia*. The method of Drs. RADFORD and SIMPSON, is considered, and Dr. MEIGS states his conclusion as follows:

"No person will ever be able to persuade me that it is either good physiology or sound practice to proceed in curing or rather in trying to cure placenta prævia by detaching the whole placenta, with an incomprehensible notion that to do so, is certainly to arrest the hæmorrhage, and that on the erroneous assumption that the blood in this condition runs out of the uterine vessels into certain hypothetical cells of the placenta, and from these cells into the womb or the vagina. I utterly deny the doctrine, and sincerely hope that the American student will reject it, which he cannot but do, if he will but receive proper views as to the structure and functions of the human placenta. With these opinions, I adhere to the long settled practice of turning and delivering by the feet in all cases of placenta prævia in which the indication is presented of emptying the womb as soon as it can be safely done."

As compared with the treatise of Dr. HODGE, Dr. MEIGS' work has the especial advantage of being a moderate volume in size, convenient and portable. This must be especially appreciated by medical students.

Something about Small-pox.

Small-pox prevails in Providence and vicinity.—*Boston Journal.*

There has been only one case of small-pox in Providence for a year and a half, and that came here from Boston. There are probably more than one hundred cases in Boston, and the deaths have been from six to nine a week for some time past.

Does the small-pox *prevail* in Boston?—*Providence Journal.*

Medical and Surgical Reporter.

PHILADELPHIA, MAY 4, 1867.

S. W. BUTLER, M. D., & D. G. BRINTON, M. D., *Editors.*

THE INTERNATIONAL MEDICAL CONGRESS AT PARIS.

The International Medical Congress will be opened at Paris on the 16th of August next. The Central Committee earnestly desire an active participation in the Congress on the part of Medical Societies from all parts of the world, by sending delegates to represent them.

By the third article of the Statutes, foreign delegates are admitted without any pecuniary consideration.

The undersigned having been appointed a Corresponding Delegate by the Central Committee at Paris, would urge upon Medical Societies the propriety of appointing delegates to the Congress as speedily as practicable, and reporting them to him, that he may forward them as early as possible to the Central Committee.

S. W. Butler, M.D.,
Philadelphia, Pa,
Corresponding Delegate.

☞ Medical Journals please copy.

NEW EDITORIAL ARRANGEMENTS.

The business of this office is increasing so rapidly, and its interests have become so varied and extensive, that it is impossible for a single person to do justice to both the editorial and business departments. For nearly seventeen years we have, with but occasional intermissions, borne the whole business and editorial responsibilities of the work, and it now seems necessary to share them with another. To this end we have associated with us in the management of the Reporter, and the *Commission Agency* attached to it, Dr. Daniel G. Brinton, formerly Surgeon and Brevet Lieut.-Col. U. S. Vols. In forming this association, we feel that we have added strength and vitality to an enterprise which has become to us a life-work, and we can promise our readers an improvement in the literary excellence of the Reporter, and more prompt attention to all its business departments. The firm name hereafter will be Butler & Brinton.

AMERICAN MEDICAL ASSOCIATION.

One of the principal topics of discussion at the meeting of the American Medical Association which convenes on Tuesday next at Cincinnati, will probably be the subject of medical education. Prior to the convening of the Association, a meeting of representatives of the medical colleges will be held, which, it is to be hoped, will be able to agree upon some definite plan of united action for the elevation of medical teaching in this country. It is incumbent upon the leading colleges in all parts of the country to adopt more uniformity in regard to the general plan of instruction, the time devoted to didactic, demonstrative, and clinical teaching, and in reference to fees. The too prevalent system of underbidding, both in requirements and fees, in order to obtain students, should be energetically discountenanced in the Association.

It is greatly to be regretted, that the illiberal action and narrow policy pursued by some of the railway lines, especially the grand trunk lines connecting the Atlantic States with the great central valley, will tend to somewhat diminish the representation, especially from the eastern section of the country. Still there should be a large representation from the western and southern States, and we doubt not the number will reach five hundred.

SURGEON J. BADIE, U. S. A.

We are at a loss to understand what *reason* influenced the Congress of the United States in rejecting the nomination of this meritorious officer for promotion. The *excuse* we believe, was, that one promotion—that of Surgeon Sutherland—had already been made from Pennsylvania, the State from which Surgeon Abadie had been appointed. Men who have faithfully served their country for thirty years, and whose chances of promotion are so rare as those of surgeons, are not so plentiful we should think, that there need have been any hesitancy in this matter. Unless there are strong reasons to justify a persistence in this singular treatment of an old and faithful officer, we shall hope that the Senate will yet recede from its late action. Men who have not served their country half as long and half as faithfully, have had promotion thrust upon them, for which it would be hard to give either reason or excuse.

The *Army and Navy Journal* in speaking of this subject says:

The rejection of Surgeon Abadie seems rather hard. He had served in the army thirty years, and was full surgeon when the new grade of medical purveyor was made, for the necessities of the late war. For this office he (as likewise Surgeon Sutherland) was selected, in compliment to his merit and long experience, and accepting it, the vacancy he left in the surgeons' list was filled. But now the Senate has rejected his nomination for promotion in the army as medical purveyor. That seems a harsh return for thirty years of service. It is offering promotion to take away one's livelihood, raising the higher to let the fall be greater. The Senate acted on full knowledge, however, of these facts, they being set forth in a special letter of recommendation from General

GRANT, and a note from Secretary STANTON, printed together with the nomination.

THE LATE PROF. J. M. ALLEN, M.D.

The subject of the following obituary notice, which is compiled from some remarks made at the funeral by Rev. W. M. HARDING, was well known and highly respected in this city, where, for a long time, he was engaged in teaching medicine. He was a very able and popular lecturer.

Dr. J. M. ALLEN was born in Princeton, Massachusetts, in the year 1815, and, in early life, enjoyed the advantages of a common school education in that quiet agricultural town. Having a great thirst for knowledge, he fitted for college at Amherst Academy, and entered Yale College in 1834. In 1838 he came to Philadelphia, to prosecute medical studies and attend lectures. In 1840 he graduated at the University of Pennsylvania, and immediately became a teacher and lecturer on Anatomy, connected with a private institution, where for years he had constantly over a hundred medical students under his instruction. Afterward he occupied for several years the place of Demonstrator of Anatomy in the Jefferson Medical College, and from there he passed to the Professorship of Anatomy and Physiology in the Pennsylvania Medical College, which post he held seven or eight years.

During this time he prepared and published the *American Medical Dissector*, a work of merit, which is used as a text-book by medical students throughout the country. Close and continued application to professional duties, as well as to scientific and literary pursuits, broke down his health, and compelled him to suspend his labors. At this time he had a severe and lingering fit of sickness, from which his constitution never fully recovered. Some six or seven years ago he went to New England to visit his friends and recruit his health, making Lowell, Mass., mainly his home. On account of his feeble state of health, he avoided all public labors and medical practice, except what incidentally came into his hands, and most of this was a gratuitous service for the poor, for whom his sympathies were always warmly enlisted, and by none, (except his family and relatives), will he be so much missed, or so long remembered, as by this class. There he was but little known, except to a few individuals and families, who casually made his acquaintance or sought his professional advice. Being himself an invalid, he sought a quiet and retired course of life. April first, being a very rainy day, he took cold, resulting in congestion of the lungs, which, with organic disease of the heart and liver, in a constitution already enfeebled, afforded a very small chance of recovery. He was confined to his room only three days.

Dr. ALLEN possessed talents of a high order, and was distinguished as a scholar from his boyhood. He was particularly fond of the natural sciences, and was a student of nature in all its aspects. As his attention was turned to the medical profession, he determined to lay a broad and deep foundation in a thorough practical knowledge of anatomy and physiology. It is doubtful whether any young man in the country, cotemporary with him, equalled or surpassed him in so definite and complete a knowledge of these sciences, as well as in pathology. In the course of his studies he examined over 1600 bodies after death, and during the fifteen years in which he was connected with some medical school in this city, there came under his instruction over two thousand medical students. He had a wonderful faculty of securing their confidence and respect, as well as inspiring an enthusiasm in their studies and prospective pursuits. Another marked feature in the character of the deceased was modesty—a peculiar sensitiveness; a retiring disposition; never presumptuous or officious; always seeking to promote the happiness and honor of others, and exceedingly careful not to injure the feelings of any one, no matter how humble, poor, or obscure the individual might be. He never praised himself; when surrounded by admirers and on the high road to distinction, he was never elated or puffed up, and scarcely ever in public or private discourse did he refer to his own labors or attainments. In many respects he was like a child; simple minded; of honest intentions; distrustful of self, laboring for the comfort, welfare, and reputation of others. He had a mind of great originality and independence,—investigating all subjects for himself, and forming his own opinions, without calling any one master. His standard of excellence was high. Into all moral and religious subjects he carried the same original and independent thinking. The Bible, especially the New Testament, was his constant companion, and no man has had more exalted views of Christ and his mission.

Dr. ALLEN not only excelled in medical sciences but was a student well versed in literature, philosophy, and history. Had his life and health been spared, the world would have been benefited by his labors and influence. His death is therefore a loss not only to his friends and relatives, but to the world generally.

Notes and Comments.

A New Hospital for the Insane in Ohio.

Provision has been made for the erection of a new hospital for the insane in Ohio, and trustees appointed to locate it.

The principal competing points for the Institution are Zanesville, Chillicothe, Athens and Marietta. The trustees are visiting those points.

Ohio has now four state institutions for the insane, and in making provision for a fifth, she shows a liberality which it would be well if some other States would imitate.

An act passed one branch of the Pennsylvania Legislature at its last session unanimously, establishing another, and a much needed institution in this State, and there were known to be but four votes against it in the other branch, yet it was defeated in the last hours of the session on technical grounds, by the contumacy of one individual.

"Why Not? A Book for Every Woman."

We are glad to see that a second edition of this little work of Dr. Storer's is already called for. It should be freely circulated, in order to check, if possible, the terrible frequency with which the horrible crime of child-murder is committed.

The book is well received by the profession and the public, and there is every indication that it is accomplishing a good work.

☞ The Baltimore and Ohio Railroad Company has made a liberal arrangement by which physicians desiring to attend the Medical Convention at Cincinnati on the 7th of May, can obtain round-trip tickets at half the price of the regular fare.

Quadruple Birth.

A Missouri paper contains an account of a quadruple birth. It says under date of April 2d—being a *second* of April story, it may be true.

Mrs. Waters, wife of Mr. James Waters, living in Bonne Femme Bottom, below Burlington, in Boone County, was last night delivered of four boys at a birth, weighing six pounds each, all alive and kicking, and it wasn't a very good night for boys either! Drs. Rothwell of Burlington and Whitaker of Marion were in attendance. She had previously had six boys at three births, and has now had six boys in less than one year.

—— The Health Officer at San Francisco recently certified that a certain child "died stillborn, one day old."

That Health Officer has a pretty "fair average" of intelligence of these officials!

Correspondence.

DOMESTIC.

Cases of Trichiniasis.

Editor Med. and Surg. Reporter.

The following cases of trichiniasis which have been under my care the past six weeks, I beg leave to report to the medical profession through your journal.

Of eight persons who were attacked with the disease, only five were under treatment. These five were all members of the same family.

One of the other three, an old man of sixty, had the same symptoms, but so mildly as to not demand medical assistance. The other two, a gentleman and lady, were visitors, and ate of the raw ham but once, but were seriously ill afterwards, the lady dangerously so.

The first case was the father, aged 51, a man of sanguine bilious temperament and a free liver, and as his case was a type of all the others, I will give in detail the history and symptoms as I observed them, and relate of the other cases only the special variations.

My first visit was March 2d, at which time I learned the following history: that he was first attacked on the Monday previous (Feb. 25,) at night, with violent pain in his neck and extending into his head, a dry hot skin, sleeplessness, and great nervous excitement; that he had taken some domestic remedies and an emetic ere I was called, but without benefit, and that he then was nauseated, had vomited and purged a mucus slimy, and bright yellow substance freely. There was also great pain in the head, suffusion of the eyes, chemosis, the conjunctivæ much congested, œdema of the eyelids, pain in the bowels, tenesmus, pulse 160, rigidity of the muscles and acute pain in them when exercised, and "distress" in all parts of the body.

If the limbs were flexed, the flexor muscles might be handled without pain, but if extended, portions of them would be very sensitive under pressure.

A gradual change took place, more marked about the fourth day after the acme of the above symptoms. The œdema of the face changed to the extremities; the urine was voided in large excess; there was profuse perspiration, difficult deglutition, slight deafness, and great exhaustion, All the females menstruated out of their due season.

About the twelfth day from the first manifestation of symptoms, there was a gradual ameliora-

tion of all symptoms, and which has continued to the present time, with one exception, a return of diarrhœa, which in father and son commenced about the fifth of April, and is still persistent.

On March 2d, a son aged 20, was taken with the same symptoms as the father, but complained more of chilliness and pains in the lower extremities, while in other respects the symptoms were less active.

On March 7th, a daughter aged fifteen was attacked. She was confined to her bed about a week, but the symptoms were less active than father or mother.

On March 9th, the mother, aged 37, "gave up, having felt for a week distressed all over." She was more seriously ill than either of the others, and longer under treatment, excepting another daughter, aged seventeen, attacked March 10th, and who died March 25th, fifteen days afterward. This case was marked from the others only by more exhaustion. There was slight delirium the day she died, and some three hours before death, she passed into a quiet sleep from which she never awoke.

Of the treatment there is but little to be said. At first, supposing that the alimentary canal was irritated by offending substances, I gave cathartics, and because of the nervous exhaustion, stimulants and tonics.

The endemic character of the cases, and want of prompt relief from the treatment, led to further investigations, and the eating of raw ham by all the parties, suggested trichina as the poison.

Drs. STEBBINS and GARDNER made a chemical and microscopical analysis of the urine without discovering any change in its constituents.

Dr. GARDNER was called in counsel to see Mrs. H., (the mother,) and at the same time, removed a portion of the peroneus longus muscle from the left leg of the girl who died the day previous.

At this time I was giving gr. 24 of quinine, and the same of am. cit. of iron; also beef tea, milk, and whisky, to the mother, and a slight omission of the regular quantity would be followed with coldness of the extremities, and apparent exhaustion.

Microscopical examination of the muscle revealed large numbers of free trichina, as many as — to a cubic inch. Many were alive, even to the fifth day after removal of the muscle from the limb, and none were discovered encysted. The examination was made by Drs. CALKINS, GARDNER, and myself, and by several microscopic experts of this city. A portion was sent to Prof. HITCHCOCK, of Amherst, who also found them in large quantities.

Several others, not under my care, but well authenticated cases, have also occurred here, and a portion of the ham eaten, owned by the parties, has been examined, and in it were found the encysted trichina in large numbers.

As the whole ham was eaten, either raw or cooked, which infested the above cases under my care, no corroborative evidence could be gained from this source, if it had been needed.

The history, as far so it could be given, was, that about the 14th of February the family commenced eating the raw ham, a little each day,—that it was purchased at a neighboring grocery, and the proprietor thinks it might be one raised in this vicinity, and which he cured.

Mrs. H. ate only once, and then quite heartily, on Monday, February 25th; at the same time the daughter who died, ate a hearty meal. No hearty meals were eaten by the others.

The old gentleman who kept around, ate but very little.

J. HOOKER, M. D.

The Status of Women-Physicians.

EDITOR MEDICAL AND SURGICAL REPORTER:

I have read with surprise the preamble and resolution adopted by the Philadelphia County Medical Society, and published in the MEDICAL AND SURGICAL REPORTER of the 6th ult., in reference to the status of women-physicians; and as a subscriber to the REPORTER, and one personally interested in the bearing of that decision, I trust I may be permitted, through the same channel, to examine the arguments which support the resolution.

Although shrinking from all controversy, and seeking the quiet path of duty, the time has come when fidelity to a great cause seems to demand that I should speak for myself and for the women with whom I am associated in this movement, and give a reason for the course we are pursuing.

The "very grave objections to women taking on themselves the heavy duties and responsibilities of the profession" appear to be based, in the *first* place, upon the assumption that they do not possess the "ability to bear up under the bodily and mental strain to which they would be unceasingly subjected in this new vocation;" in the *second*, upon the presumed incompatibility of professional practice with the best home influence of the woman and the duties of the mother; in the *third* place, upon the collision and practical difficulties that might arise if different members of the same family should employ two physicians—a man and a woman; and *lastly*, the objections are made upon the ground of the

equivocal effect of medical consultations upon the modesty and delicacy of feeling of those who may thus meet; and also upon the fact, that "in no other country but our own is a body of women authorized to engage in the general practice of medicine."

In regard to the first difficulty, few words need be expended. Pausing merely to allude to the fact, that in barbarous communities women is preëminently the laborious drudge, and that in civilized society she is the *nurse*, keeping her unceasing vigils, not only by the cradle of infancy, but by every bed of sickness and suffering, with a power of sustained endurance that man does not even claim to possess, that her life is as long and her power of surmounting its painful vicissitudes not inferior to his, we come to the open undeniable fact, that women *do* practise medicine; that they *are* able "to bear up under the bodily and mental strain" that this practice imposes, and that "natural obstacles" have not obstructed their way.

There are in this city women who have been engaged in the practice of medicine a dozen years, who to-day have more vigor and power of endurance than they possessed in the beginning of their career; and the fact of "their delicate organization and predominance of the nervous system," combined with their "trained self-command," is the very reason that in some cases their counsel has been preferred to that of the more robust man.

The *second* objection, bearing upon the home influence of woman, has certainly another side.

Probably more than half the women of this city and country are under the stern necessity of supporting themselves by their own exertions. Some mothers leave their young children day by day and go out to labor, in order to be able to bring them bread at night; others sew away their strength for the pittance which barely keeps famine from their doors, and, exhausted with their labors, they are indeed not in "a fit frame of mind to interchange endearments with their beloved little ones," nor can they, even with the price of life itself, surround them with the home influences and comforts needful to their healthful and harmonious development.

If the woman who has studied medicine should be surrounded by a family of young children, we should surely regard it as a misfortune if the same overpowering necessity should compel her to follow an active practice during the period that these heavy maternal claims were pressing upon her; although, even then, her duties would be less exhausting, and her time less continuously occupied than are hers who supports her family by sewing or washing.

But although the mother may not actively exercise her profession, the knowledge of preventive medicine which she possesses, will surely aid her in training her children in accordance with those hygienic rules which are now so sadly neglected in families, and will not detract from that pure, sweet, "home influence" which is the safeguard of the happiness and integrity of society.

We know of quite a number of medical women, who, in consequence of the remunerations of their practice, have been able to make themselves the centres of happy homes, which otherwise they could not have done; and some of these, in their thanksgivings for the daily interests and enjoyments of their lives, count it among their deepest blessings that they have been enabled to pursue a course which so richly satisfies their womanly sympathies and affections, as well as gives scope to their intellectual cravings and powers.

The *third* objection, in regard to collisions and "heart-burnings," could scarcely apply to high-toned physicians who know what belongs to the proprieties of their position. The danger would seem to be equally imminent if the medical advisers were both of the same sex, and yet we all know that it is quite common in this city for more than one practitioner to attend the different members of the same family—one being preferred for his supposed skill in one class of cases, another for his superior reputation in another class—and we have yet to learn that injurious results follow this proximity of practitioners.

The natural tendency would seem to be to foster care and research; and if mutual observation of the results of treatment should occasionally suggest improved methods and break up old, sluggish routine in either party, the profession and the community will surely be gainers by this mutual stimulus.

The objection upon the ground of the invasion of delicacy in examining questions of disease and treatment is indeed an astonishing one, to come from a body of scientific and right-minded physicians. Who are the patients treated by these men? Often women—the sensitive and refined. The whole nature of the malady must be investigated and the means of recovery enforced. If, as frequently happens, to save the shrinking sensitiveness of the young woman, some tender experienced mother or elder friend informs the physician of the symptoms and conveys to the

patient his conclusions, she, for the time, performs the part of the attending physician in reference to the consulting one; yet who will dare assert that her womanly modesty is compromised, or that "the delicate reserve with which" a man "is accustomed to address women in the sick-room" is injuriously affected by this necessary and humane intervention?

Among the motives which have contributed to the support of this movement, that of shielding the sensibilities of shrinking women has not been the least.

Men opposed to the medical education of women have, in some cases, changed their views when the subject has been brought home to their feelings in the person of some beloved member of their own families, and they have appreciated the mental suffering which the dread of medical investigation has caused. Physicians, too,—the father, husband, and brother,—have asked our counsel in the cases of those dearest to them; and they have asked it because we were women, and as such, they believed we might elicit the cause of suffering and apply the means of relief, as they had not been successful in doing.

But leaving these special points, there are broad, general grounds upon which, as physicians, and as women, we stand, and appeal from the resolution of the Philadelphia County Society to the better judgment of true-hearted professional men.

When once it is admitted that women have souls, and that they are accountable to God for the uses of the powers which He has given them, then the exercise of their own judgment and conscience in reference to these uses, becomes a thing which they cannot, rightfully, yield to any human tribunal.

As responsible beings, who must abide by the consequences of our course for time and for eternity, we have decided for ourselves that the study and practice of medicine are proper, womanly, and adapted to our mental, moral, and physical constitution.

We will scarcely be charged with presumption in supposing that our instincts may be as pure, our intuitions as clear, our sense of what is right and fitting for ourselves as reliable, as are those of the men who condemn our course.

We are sustained by the approval and sympathy of the best men and women—by the moral sentiment of the general community.

We feel, and society feels, that we are not usurping the place of men, but, taking a position in the broad field of medicine, which appropriately belongs to woman; we shall enlarge the sphere of professional usefulness, and contribute to the knowledge which shall bless the race. The names of those who support our Hospital and College are largely the names of those of whom Philadelphia is justly proud as representatives of her intelligence, respectability, and moral worth.

That we have not had the means of acquiring medical knowledge, is a charge that, it seems to us, should hardly come from those who have systematically closed hospitals and colleges against our applications for admission, and who have endeavored to prevent the members of their fraternity from assisting us in our struggle for knowledge.

That we have stemmed this tide of opposition, and found opportunities for obtaining medical instruction—some in other cities, and across the ocean, some by persevering and long continued efforts in various ways at home; that we have found noble men in the profession to assist us, and that we have been able to found hospitals, and open various channels for practical instruction—*is due to the inherent vitality of our cause*, and its strong hold upon the sympathies and convictions of the community.

That we have not yet all the facilities for instruction that are needed, we are fully aware.

That "there are female graduates who are a disgrace to the medical profession," we also know too well; for the sake of humanity we would that we could truly add, that the graduates who disgrace the profession are found *only* among women!

From the nature of the relation of physicians to society, not more than one man in hundreds follows medicine as a profession, and the proportion of women, under the most favoring circumstances, will probably not be greater; but the systematic training, and the knowledge of physiological functions, and hygienic conditions involved in a thorough medical education for the few, will, we believe, be reflected in many homes, and be one of the means of radically changing that mistaken plan of education, and those destructive social customs, and habits, which are now undermining the health, and darkening the lives of so many of the women of this country.

If it be true that "in no other country than our own is a body of women authorized to engage in the general practice of medicine," the fact is no more an argument against its propriety than is the fact that in no other country are the rights of the people so acknowledged and secured, an argument against the propriety of republican institutions.

We regard this movement as belonging to the advancing civilization of the age—as the inevitable result of that progressive spirit which is unfolding human capabilities in many directions, and which has perceived that it is the condition of the highest health and happiness for woman, that she, also, should exercise the powers with which she has been endowed, in accordance with her own convictions and feelings, and in harmony with her nature and organization.

That our position is womanly—that this work is established in the fitness of things, and in the necessities of society, and that the movement belongs to the "revolutions which never go backward," we have no shadow of doubt.

For us it is the post of restful duty—the place assigned to us, as we believe, in the order of Providence, and we can do no other than maintain it.

But on behalf of a little band of true-hearted young women who are just entering the profession, and from whose pathway we fain would see annoyances and impediments removed, we must protest, in the sacred name of our common humanity, against the injustice which places difficulties in our way, not because we are ignorant, or pretentious, or incompetent, or unmindful of the code of medical or Christian ethics, but because we are women.

Ann Preston, M. D.

Philadelphia, April 22, 1867.

News and Miscellany.

ARMY AND NAVY.

ARMY.

The following changes are announced.

Surgeon B A. Clements has been transferred from the Department of the East to the Department of Dakota. Surgeon C. H. Alden, and Assistant Surgeon G. M. McGill, transferred from Department of the East to the Department of Missouri. Assistant Surgeon Ely McClellan, transferred from Department of the East to District of New Mexico. Assistant Surgeon W. R. Ramsey, transferred from Department of the East to the Department of the Platte. Assistant-Surgeons Samuel Adams and Henry McElderry, transferred from Department of the East to District of Texas.

Assistant-Surgeon C. R. Greenleaf, assigned with Examining Board at Louisville to relieve Surgeon Lewis Taylor.

MEDICAL SOCIETY OF NEW JERSEY.

The next Annual Meeting of the Medical Society of New Jersey will be held in the City Hall Buildings at Newark, on the fourth Tuesday of May, (the 28th,) at half-past 7 o'clock, P. M.

WM. PIERSON, Jr.,
Recording Secretary.

Orange, N. J., April 26, 1867. 530—t.f.

MARRIED.

Croll—Trexler.—April 23d, 1867, at the residence of the bride's parents, by Rev. E. W. Hutter. D. D., Rev. Alfred D. Croll, Lutheran Minister, of Lyons, Pa., and Miss Alice C., second daughter of Dr. Lesher Trexler, of Long Swamp, Berks co., Pa.

Davis—Smith. Clutter—Smith.—By the Rev. Gary Hickman, March 28th, at the residence of Dr. J P. Smith, Geary, Kan., Mr. C. D. Davis, of Philadelphia, Pa., and Miss M. Hattie Smith. Also at the same time, Lieut. A. A. Clutter and Miss Kettie V. Smith.

DeGraff—Veeder.—In Guilderland, Albany co., N. Y., at the residence of the bride's father, April 24, by the Rev. J. Bailie Adams, Abram DeGraff, M. D., and Miss Mary Frances Veeder.

Farrington—Barry.—At St. Andrew's Church, Harlem, April 23, by the Rev. Wm. G. Farrington, J. Oakley Farrington, M. D., and Henrietta Barry, daughter of John Barry, Esq., of Mott Haven, N. Y.

Hopkins—Johnson.—April 16th, in Downingtown, Pa., at the Central Presbyterian Church, by the Rev. Matthew Newkirk, Jr., Dr. E. Hopkins, Jr., of Baltimore, Md., and Miss Chellie M. Johnson, of West Chester, Pa.

Hosmer—Breck.—In Newton Corner, Mass., April 16th, by Rev. E. E. Strong, of Waltham, Charles E. Hosmer, M. D., of Bedford, Mass., and Miss Sarah E. Breck, of Newton.

Hurley—Graham.—By Rev. Geo. McDonald, March 27th, at the home of the bride's mother, Mr James M. Hurley, Surgeon U. S. Army, and Miss Jane Graham, of Powhatan, Ohio.

Palmer—Fillmore.—At Broadway Church, Norwich, Conn., March 20th, 1867, by Rev. M. M. G. Dana, Dr C. N. Palmer, of Lockport, N. Y., and Miss Sarah R., daughter of J. B. Fillmore, of Norwich, Conn.

Simmons—Pilling.—In this city, April 24, 1867, at the Church of the Intercessor, by Rev. W. J. Barnham, Dr. J. R. Simmons, of Americus, Ga., and Miss Addie P. Illing, of Philadelphia, daughter of Ellis Pilling, Esq., and grand-daughter of the late Dr Joseph DePuy.

Sparrow—Edwards.—April 9, by the Rev. Dr. Bolles, of Boston, Orson C. Sparrow, M. D., of Brooklyn, N. Y., and Miss Sarah M. Edwards, of Norwich, daughter of Lewis Edwards, Esq.

Sutton—McCullough.—At the residence of the bride's father, in Canonsburg, Pa., April 17th, 1867, by Rev. R. F. Wilson, assisted by Rev. D. H. Barron, Dr. R. S. Sutton, late of this city, now of Pittsburgh, and Miss Josie, youngest daughter of James McCullough, Esq.

Young—Bicknell.—On Tuesday, April 23d, 1867, at the Church of the New Testament, in this city, by Rev. Thos. H. Stockton, pastor, Geo. B. Young, M. D., and Emily A., daughter of Dr. Rufus Bicknell, of West Philadelphia.

DIED.

Carroll.—At the quarters of the 1st U. S Infantry, Jackson Barracks, New Orleans, La., on the 23d of April, 1867 of consumption, Acting Assistant Surgeon Thomas Carroll, U. S. Army, aged 29 years. Late of No. 617 South Sixteenth Street, Philadelphia, Pa., formerly on duty at Mount Pleasant U. S. General Hospital, Washington, D.C., and McClellan, U.S. General Hospital, Philadelphia. Remains forwarded to Keene, Ohio, for interment.

Emlen.—In this city, April 27th, Ann A., wife of Dr. J. V. Emlen.

Jones.—In New York, April 25th, of pneumonia, Silas Jones, M. D., æt. 68 years.

METEOROLOGY.

April,	15,	16,	17,	18,	19,	20,	21.
Wind	S. W.	S. W.	N.	N.	S. W.	S.	S.W.
Weather	Cl'dy. High winds	Cl'dy Rain.	Clear.	Clear.	Clear. Frost & ice.	Cl'dy. Sh'r.	Clear.
Depth Rain		9-10				1-10	
Thermometer.							
Minimum	42°	52°	50°	40°	35°	44°	48°
At 8, A. M.	56	58	57	53	45	56	58
At 12, M.	70	61	61	58	58	68	66
At 3, P. M.	71	63	62	60	59	65	67
Mean	59.75	58.50	57.50	52.75	49.25	58 25	59.75
Barometer.							
At 12, M.	30.2	29.6	29.8	30.2	30.3	30.1	29.9

Germantown, Pa. B. J. Lemdom.